

2018 ANNUAL DRINKING WATER QUALITY REPORT

THE BOROUGH OF HANOVER / HANOVER MUNICIPAL WATER WORKS

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien. (This report contains important information about your drinking water. Translate it, or speak with someone who understands it.)

The Drinking Water Quality Report is being provided to you by The Borough of Hanover/Hanover Municipal Water Works as a snapshot of last year’s water quality. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Additional information or questions concerning this report or the water department can be obtained by contacting The Borough of Hanover (owner and operator of the Hanover Municipal Water Works) 44 Frederick Street, Hanover, Pa. 17331 at 717/637-3877 during regular business hours, Monday through Friday, 8:00am to 4:30pm. The Borough’s regularly scheduled meetings are the fourth Wednesday of each month beginning at 7:00pm in the Borough municipal building (44 Frederick Street).

The sources of raw water the water department treats into drinking water include the Sheppard Myers Dam, Lawrence Baker Sheppard Dam (both located in W. Manheim Township, York County), Kitzmiller Dam and Slagles Run Intake and Pump Station (both located in Conewago Township, Adams County). All of our water sources are surface water and each is used as needed to supply the treatment facility located in Conewago Township, Adams County.

Source Water Assessment and Protection (SWAP): As defined by a 1996 amendment to the Safe Drinking Water Act, The Susquehanna River Basin Commission developed the SWAP report under contract with The Pennsylvania Department of Environmental Protection (PADEP) for our source water. The susceptibility analysis summary covered four sources: Sheppard Myers Dam, Lawrence B. Sheppard Dam, Kitzmiller Dam each

received a B and C rating; Slagles Run Intake and Pump Station was rated A, B and C. A susceptibility rating (A=high priority, F=low priority) is used to rank protection priorities for the potential sources of contamination. Ex. Rating “A” auto repair shops, gas/service stations, roadways; Rating “B” urban developments, industrial discharges, wastewater treatment plants, agricultural; Rating “C” on-lot septic systems and underground tanks. Summary reports of the Assessment are available by writing to The Borough of Hanover/Hanover Municipal Water Works, 44 Frederick St., Hanover, Pa. 17331 and will be available on the PADEP website at [www.dep.state.pa.us](http://www.dep.state.pa.us) (Keyword: “DEP source water”). Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the PADEP, Southcentral Regional Office (Harrisburg), Records Management Unit at 717/705-4709.

\*\*\*\*ADDITIONAL INFORMATION\*\*\*\*

- An alert service offered by The Borough of Hanover is used to notify residents of emergencies and general notifications using a service called CODERED®. All citizens are encouraged to sign up for this notification. You may register to receive the message on more than one phone in addition to email. Not sure if you are signed up, register again; the system will not duplicate your information. You may sign up by going to the Borough web site and click on Community Links then click on the CODERED® icon. If you don’t have internet service you may contact the Borough office and give them your information. The data collected is not shared with anyone else.
- Borough utility bills may be paid on line by going to the Borough web site and clicking on “On-Line Bill Pay Link”. Note there is a small fee for paying on line with a credit card. Payments are accepted also by paying through your personal bank account. There is a night deposit drop on the front and side entrance of the Borough building to drop payments after hours.
- Common types of leaks found in the home include worn toilet flappers, dripping faucets and other leaking valves.
- Fixing easily corrected household leaks can help save about 10 percent on water bills.

BOROUGH WEB SITE: [www.hanoverboroughpa.gov](http://www.hanoverboroughpa.gov)

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THE BOROUGH OF HANOVER  
HANOVER MUNICIPAL WATER WORKS  
44 Frederick Street  
Hanover, PA. 17331

Public Water System  
Identification Number  
7670076

HANOVER MUNICIPAL  
WATER WORKS

THE BOROUGH OF HANOVER



CONSUMER CONFIDENCE REPORT

ANNUAL WATER QUALITY

2018

# W A T E R   Q U A L I T Y   T A B L E

The table below lists all the drinking water contaminants that we detected during the 2018 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 - December 31, 2018. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Chemical Contaminants							
Substance (Units)	Sample Date	MCL	MCLG	Level Detected	Range of Detections	Violation	Sources of Contamination
Barium (ppm)	02/15/18	2	2	<0.400	NA	No	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries
Fluoride (ppm)	2018	2**	2	Avg: 0.75	0.66 – 0.81	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate as nitrogen (ppm)	02/14/18	10	10	2.67	NA	No	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage
Total Trihalomethanes (TTHMs) (ppb)	2018	80	NA	40.6*	11.8 – 104.0	No	By-product of drinking water chlorination,* <b>running annual avg.</b>
Haloacetic Acids (HAA) (ppb)	2018	60	NA	24.2*	11.0 – 49.0	No	By-product of drinking water chlorination,* <b>running annual avg.</b>

\*\*EPA’s MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Substance (Units)	Sample Date	MRDL	Lowest Level Detected	Range of Detections	Violation	Source of Contamination	
Free Chlorine (ppm)	2018	4	1.12	1.12 – 1.76	No	Water additive used to control microbes.	

Distribution Disinfection Residuals							
Substance (Units)	Sample Date	MRDL	MRDLG	Level Detected	Range of Detections	Violation	Sources of Contamination
Free Chlorine (ppm)	2018	4	4	Avg: 0.82	0.01 – 1.90	*Yes	Water additive used to control microbes. Monthly averages.

\*During routine sampling of the distribution system 2 results out of 610 samples collected and analyzed were below the 0.02 ppm MinRDL. Both corresponding bacteria sample results were negative. The issues have since been corrected.

LEAD AND COPPER (Tap water samples were collected from 30 customers taps)							
Substance (Units)	Sample Date	AL	MCLG	90 <sup>th</sup> Percentile	Sites above the AL	Violation	Sources of Contamination
Lead (ppb)	2016	15	0	ND	0 out of 30 Every 3 years	No	Corrosion of household plumbing system; Erosion of natural deposits
Copper (ppm)	2016	1.3	1.3	0.290	0 out of 30 Every 3 years	No	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives

Turbidity – A measure of the clarity of the water							
Substance (Units)	Sample Date	MCL		Highest Monthly Average of All Readings		Violation	Sources of Contamination
Turbidity (NTU)	2018	TT=1 NTU for a single measurement		0.078 NTU		No	Soil Runoff
	2018	TT=at least 95% of monthly samples ≤0.3 NTU		100% of monthly samples ≤0.3		No	

Cryptosporidium – microbial pathogen found in surface water							
Substance (Units)	Sample Date	Samples taken from raw water Average should be <0.075			Highest Result of All Samples	Violation	Sources of Contamination
Cryptosporidium (oocysts/Liter)	2016-18	0.026			0.50 out of 48 samples taken	No	Naturally present in surface water

Total Organic Carbon (TOC)							
Substance	Sample Date	Performance Ratio Avg. Required	Range of Performance Ratio Achieved	Number of quarters out of compliance	Violation	Source of Contamination	
TOC	2018	≥1.00	1.22 – 1.39	0	No	Naturally present in the environment	

## CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also, come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**In order to assure** that tap water is safe to drink, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and DEP regulations establish limits for contaminants in

bottled water which must provide the same protection for public health.

**Drinking water**, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline (1-800-426-4791).

**The sources of drinking water** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Some people may be more vulnerable** to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on

## TABLE DEFINITIONS:

**Parts per million (ppm):** One part per million or milligrams per liter (mg/L).

**Parts per billion (ppb):** One part per billion or micrograms per liter (ug/L).

**ND:** Not detectable at testing limits.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Minimum Residual Disinfectant Level (MinRDL):** The minimum level of residual disinfectant required at the entry point to and including the distribution system.

**Nephelometric Turbidity Unit (NTU):** Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**NA:** Not Applicable

**Range of Detections:** The analytical results provided by a certified laboratory which reports the lowest and highest result for that contaminant.

appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

**Information about Lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Hanover Municipal Water Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tab for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.